



CLEAN VERSION OF THE CLAIMS

1. A system for producing alternating current electric energy comprising:
at least two turbines that are mechanically separate but electrically connected, said at least two turbines comprising:
 - (a) at least one industrial gas turbine type for producing electric power; and
 - (b) at least one aeroderivative gas turbine type for producing electric power.
2. The system of claim 1, further including at least one steam turbine, said steam turbine in thermodynamic communication with at least one of said industrial gas turbine type or aeroderivative gas turbine type such that the exhaust heat from the turbine is used by the steam turbine to generate electric power.
3. The system of claim 2, further including at least one heat recovery steam generator in thermodynamic communication with at least one said industrial gas turbine type or aeroderivative gas turbine type for providing steam to said at least one steam turbine.
5. The system of claim 1, wherein said aeroderivative gas turbine type is used to produce electricity until said industrial gas turbine type is producing adequate electrical output, at which time the aeroderivative gas turbine type is shut down.
6. The system of claim 1, further comprising one or more HRSGs in thermodynamic communication with said aeroderivative gas turbine type, wherein the aeroderivative gas turbine type is left on-line and is used to keep said one or more HRSGs in a state of hot stand by for enhanced system start/stop cycling duty capabilities.
7. The system of claim 5, wherein the aeroderivative gas turbine type is left online and used to generate electricity when additional electrical output is required.

8. A system for producing alternating current electric energy comprising:

- (a) at least one industrial gas turbine type for producing electric power;
- (b) at least one aeroderivative gas turbine type for producing electric power;
- (c) at least one steam turbine, said steam turbine in thermodynamic communication with at least one of said industrial gas turbine type or aeroderivative gas turbine type such that the exhaust heat from the turbine is used by the steam turbine to generate electric power;
- (d) a heat recovery steam generator with supplementary firing equipment associated with each industrial gas turbine type and aeroderivative gas turbine type for providing high temperature, high pressure steam to said at least one steam turbine;
- (e) a fuel system for providing fuel to the industrial gas turbine type, aeroderivative gas turbine type and heat recovery steam generators; and
- (f) a water system for providing a suitable water supply to the steam turbines and the heat recovery steam generators.

9. A system for producing alternating current electrical energy comprising:

- (d) at least one industrial gas turbine type for producing electric power; and
- (e) at least one aeroderivative gas turbine type for producing electric power;
- and
- (f) at least one electric generator powered by at least one of said industrial gas turbine type or said aeroderivative gas turbine type.

10. A system for producing alternating current electric energy comprising:

- (a) at least one industrial gas turbine type for producing electric power;
- (b) at least one aeroderivative gas turbine type for producing electric power;
- (c) at least one steam turbine, said steam turbine in thermodynamic communication with at least one of said industrial gas turbine type or aeroderivative gas turbine type such that the exhaust heat from the turbine is used by the steam turbine to generate electric power;

(d) a heat recovery steam generator with supplementary firing equipment associated with each industrial gas turbine type and aeroderivative gas turbine type for providing high temperature, high pressure steam to said at least one steam turbine;

(e) a fuel system for providing fuel to the industrial gas turbine type, aeroderivative gas turbine type and heat recovery steam generators;

(f) a water system for providing a suitable water supply to the steam turbines and the heat recovery steam generators;

(g) at least one electric generator powered by one of said gas turbines; and

(i) at least one electric generator powered by said steam turbine.